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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,234	03/22/2004	Toshihiro Hatakeyama	1131-0506PUS1	9040
2292	7590	07/28/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			HARVEY, JAMES R	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,234

Applicant(s)

HATAKEYAMA, TOSHIHIRO

Examiner

James R. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 9, 13, 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-12 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-7-05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

- The Information Disclosure statement(s) and related documents that were filed on 2-7-05 have been considered.

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**** Claim(s) 1, 2, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Homfeldt (5620290).**

-- In reference to Claim(s) 1, Homfeldt shows (cover sheet)

a ground terminal body 10 formed into an annular shape as viewed in plan; and

at least one connection portion 14 formed integrally with the ground terminal body 10, the connection portion 14 being bendable (as best seen in figure 3) and extending from an inner circumference of the ground terminal body 10 toward a center of the ground terminal.

In particular reference to the recitation "ground" this is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

Homfeldt also shows (figure 8) that the connection portion 14 is in direct physical contact with the chassis 24. The meaning of "chassis" is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing a housing unit 24 that is a ground (see the insert of the definition from Dictionary).

-- In reference to Claim(s) 2, Homfeldt shows (cover sheet) 10 the ground terminal is formed into a circular annular shape.

-- In reference to Claim(s) 4, Homfeldt shows (cover sheet)

the ground terminal has a plurality of connection portions 14 that are formed integrally with the ground terminal body 10 and spaced from one another in a direction of the inner circumference of the ground terminal body, these connection portions being bendable (figure 3) and extending from the inner circumference of the ground terminal body 10 toward the

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center of the ground terminal.

-- In reference to Claim(s) 6, Homfeldt shows the ground terminal body is used to establish electrical connection with a printed board 20 (column 4, lines 11-14) to which the ground terminal is mounted.

** Claim(s) 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Homfeldt.

-- In reference to Claim(s) 3, Homfeldt shows substantially the invention as claimed. Homfeldt shows a printed circuit board 20 in which a mounting hole 28 is used with a screw 18 to mount the ground terminal on the bottom of the printed circuit board.

However, Homfeldt it is not clear if the connection portion 14 of the ground terminal has a length larger than a thickness of the printed circuit board.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to change the size of the length dimension of the connection portion 14 of Homfeldt, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Daily*, 149 USPQ 47 (CCPA 1976).

One skilled in the art would have been motivated to increase the length in order that the assembly of Homfeldt would be able to function with a smaller diameter and correspondingly lighter screw and thus reduce the weight of the assembly or material costs associated with the smaller diameter screw.

-- In reference to Claim(s) 14, Homfeldt shows substantially the invention as claimed.

However, Homfeldt does not show each of the plurality of connection portions is formed into an arrowhead shape whose proximal portion is narrow in width.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose the shape of the connection portion 14 to be formed into an arrowhead shape whose proximal portion is narrow in width, since applicant has not presented any explanation that this particular shape is anything more than one of numerous configurations a person of ordinary skill in the art would find obvious for the purpose of providing a mating surface between two parts. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1976).

One skilled in the art would be motivated to choose the arrowhead shape in order to decrease the possibility of the connection portions 14 becoming cross-threaded with the threads on the screw 18.

** Claim(s) 7 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Homfeldt in view of Jamet et al. (4468615).

-- In reference to Claim(s) 7, Homfeldt shows substantially the invention as claimed. However, Homfeldt does not explicitly show the ground terminal body is soldered to a solder portion formed as a connection portion in the printed board.

Jamet teaches (column 1, lines 55-60) that better contact can be established with solder connections.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the invention of Homfeldt with the solder teachings of Jamet.

One skilled in the art would have been motivated to use the solder, as taught by Jamet (column 1, line 60) to make a more reliable contact.

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** Claim(s) 1, 2, 4, 5, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer.(3670409).

-- In reference to Claim(s) 1, Reimer shows (figure 3)

a ground terminal body 10 (figure 3) formed into an annular shape as viewed in plan; and

at least one connection portion 18 formed integrally with the ground terminal body 10, the connection portion 18 being bendable and extending from an inner circumference of the ground terminal body toward a center of the ground terminal.

In particular reference to the recitation “ground” this is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

Reimer does teach that base 12 can be a metal structure (column 3, line 72) and it can be considered to be a chassis as well as a base because the meaning of “chassis” is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing a metal structure in which the components of a circuit are mounted (see the inserted definition from The American heritage Dictionary).

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However, Reimer does not show the connection portion is in direct physical contact with a chassis.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the parts of Reimer to have the contact portion 18 in direct physical contact with a chassis, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

One skilled in the art would have been motivated to rearrange the parts of Reimer in order to reduce the cost of the assembly by eliminating the layer 20.

-- In reference to Claim(s) 2, Reimer shows (cover sheet) the ground terminal is formed into a circular annular shape or a polygonal annular shape.

-- In reference to Claim(s) 4, Reimer shows (figure 3) the ground terminal has a plurality of connection portions 18 that are formed integrally with the ground terminal body and spaced from one another in a direction of the inner circumference of the ground terminal body, these connection portions being bendable (figure 2) and extending from the inner circumference of the ground terminal body toward the center of the ground terminal.

-- In reference to Claim(s) 5, Reimer (figure 3) shows the plurality of connection portions 18 of the ground terminal are symmetric with respect to the center of the ground terminal as viewed in plan.

-- In reference to Claim(s) 10 and 11, Reimer shows (figure 3) a plurality of connection portion having a rear tip end (near the lead line of numeral 16) formed into an arcuate shape.

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-- In reference to Claim(s) 12, Reimer shows (figure 3) the plurality of connection portions 18 are comprised of two connection portions each having a wide tip end portion (near the lead line of numeral 19) facing that of another connection portion.

Response to Remarks

-- In response to applicant's assertion (page 11) concerning that the connection portion 14 of Homfeldt is not shown to be in direct physical contact with the chassis, the examiner disagrees. Homfeldt shows (figure 8) that the connection portion 14 is in direct physical contact with the chassis 24. The meaning of "chassis" is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing a housing unit 24 that is a ground (see the insert of the definition from Dictionary). Homfeldt (figure 8) indicates that the housing 24 is a metal structure and Homfeldt teaches (column 4, line 52) that it is a ground.

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Academic Press Dictionary of Science and Technology
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chassis ground

Electricity

A connection to the metal structure (chassis) on or in which the components of a circuit are mounted.

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Citing this entry

chassis ground. Academic Press Dictionary of Science and Technology (1992). Retrieved 13 July 2005, from xreferplus.
<http://www.xreferplus.com/entry/3085039>

-- In response to applicant's assertion (page 12) concerning that it would not be obvious from the reference of Reimer, the examiner disagrees. As noted above, one skilled in the art would have been motivated to rearrange the parts of Reimer in order to reduce the cost of the assembly by eliminating the layer 20. Further, the origination of the motivation for an obvious rejection is not limited to the reference itself, since it has been held that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found ... or in the knowledge generally available to one of ordinary skill in the art. In re Kotzab, 217 F.3d 1365, 1370, 55

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USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002).

Allowed Claims

- Claim 8, 9, 13, 15 and 16 are allowed and the reasons are indicated in the previous office action..

Conclusion

- Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James R. Harvey, Examiner

jrh
July 14, 2005



THO D. TA
PRIMARY EXAMINER